Order No.: DD+DIS142.02E

1 piece U7OYY MA1

ADC Compact Plus
Type 5146/100

Centricity CR MP3510
Type 5146/200

Rating			When?		
safety relevant	reliability	new function	immediately	next service	as required
	X				X

Please file this document in chapter 10 of your technical documentation

Image Artifacts due to Reflexes in Optic Modules

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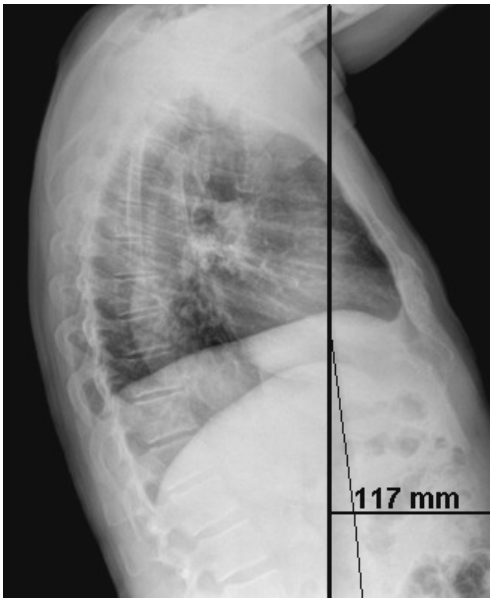
AGFA

1 Problem

Some ADC Compact Plus optic modules may have disturbing reflexes of the scan beam which can lead to vertical image artifacts.
The artifact appears 117 mm from the border: For AP at left side border and for PA at right side border. Curved lines may also appear.
The artifact mostly appears on images with format 35 x 43 cm in portrait mode. Example: Thorax, abdomen, spine.



2 Reasons for Artifacts

Reflex in optic module causes artifacts. The intensity of artifacts on the diagnostic image has two factors:

- The intensity of the reflex within the optic module
- The intensity and size of the direct exposed area on IP

Intensity of reflex:

The intensity of the reflex within the optic modules varies in a wide range. The first machines were delivered with modules with a high intensity of reflex and it was reduced for the following. Even if the optic modules, also the spare part modules, have a low intensity of reflex it still can cause artifacts.

Intensity and size of direct exposed area on IP:

The larger the not collimated area is and the higher the applied dose, the bigger the perceived artifact on the image.

Most critical are lateral chest or lumbar spine images of corpulent patients, where the kV and mAs values are very high and some areas of the IP are not collimated.

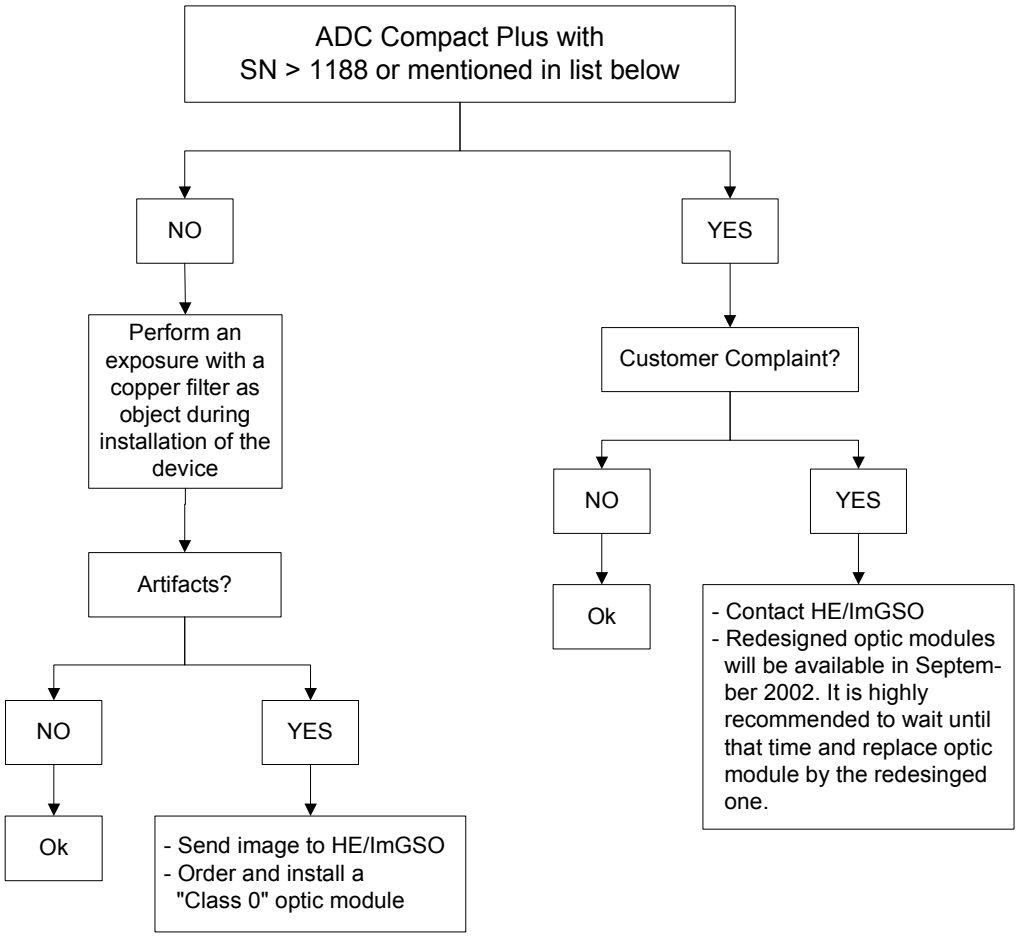
3 Actions to Solve or Moderate the Problem

Production reduced the intensity of the reflex to a minimum by optimizing the coating layer of the lenses. To achieve a totally reflection free optic module a redesigning is in progress. After it is tested carefully it will be released (current estimates for availability is September 2002).

3.1 Steps to Analyze Optic Modules of Devices

As resumed in that diagram for the ADC Compact Plus with SN>1188 or mentioned in the list below:

- **Don't perform a copper filter test during installation.**
- **In case of reflection problem reported by the customer, it is highly recommended to wait for the redesigned optic-modules, which solve the problem definitely. Those modules are expected in September 2002.**


ADC Compact Plus with
SN > 1188 or mentioned in list below
NO
YES
Perform an exposure with a copper filter as object during installation of the device
Artifacts?
NO
YES
Ok
- Send image to HE/ImGSO
- Order and install a "Class 0" optic module
Customer Complaint?
NO
YES
Ok
- Contact HE/ImGSO
- Redesigned optic modules will be available in September 2002. It is highly recommended to wait until that time and replace optic module by the redesinged one.

SN: 1148, 1174, 1176, 1177, 1178, 1179,
1181, 1182, 1183, 1184, 1186, 1188, >1188
5002, 5003, 5005
("Class 1" optic modules)

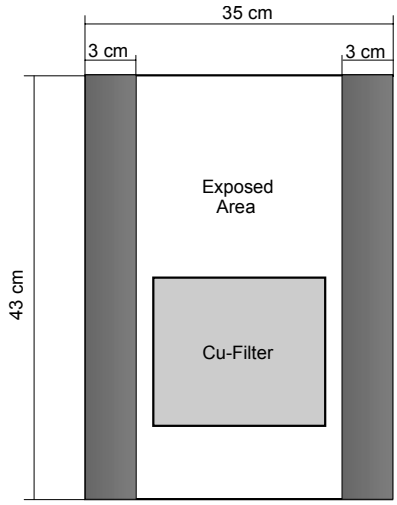
If there are still problems, also with installed "Class 0" optic module, inform the customer about the problem and install the redesigned optic module as soon as it is available (expected in September 2002).

3.2 Procedure to Perform an Exposure

(1) Identify a cassette, 35 x 43 cm format, with Thorax in portrait mode
(2) Carry out an exposure on the Thorax X-ray source with the Thorax exposure settings given by the customer, and put an object on the cassette as follows:

Put a copper filter on the cassette (Exposed area in figure beside).

The copper filter has not to cover the background area (dark gray area in figure beside).



3.3 Replacing the Optic Module

Please find the instructions for replacing the optic module in your service documentation chapter 3.5.

4 Important Remarks

- AGFA Altenstadt factory can only produce a limited amount of optic modules a day. We will monitor and inform countries about orders and deliveries.
- To prevent from unjustified exchange of optic modules in the field and due to the high costs HE/Im-GSO SC will validate every order after artifact image analysis.
- The defective spare parts must be sent back immediately to the address below mentioned as MA4 parts:

  LOG-T Retouren Stelle
  Tegernsee Landstraße, 161
  81539 München

- Spare parts are free of charge for the NSO's.